

Southeast Tornado MAT

Daily Report

Tuesday 10MAY2011

OVERVIEW:

The three field teams for the MAT deployed to the following areas: North of Birmingham, Alabama; middle Tennessee (Cleveland, Blue Springs, Collegedale, Ooltewah, Chattanooga, Red Bank, and Tiftonia); Northeastern Mississippi (Smithville); Western Alabama (Hacklesburg and Phil Campbell). The map at the end denotes where the teams traveled. Notable findings from the teams are provided below.

OBSERVATIONS:

Brookside, AL

Brookside Alabama has a new community storm shelter constructed after a flood loss of their existing Fire Station. It is a FEMA 361 community shelter built in 2009 with a FEMA grant. The facility has a capacity for 300 (33'x50') and had 150 occupants during this event. There was no visible damage from this storm. The Mayor thinks even more will go in next time. The city staff was very appreciative of their newly constructed tornado shelter.



Brookside, AL: Fire station on top of community shelter.



Brookside, AL: Inside of Community tornado shelter

Graysville, AL

Graysville has an above ground Tornado Shelter. It is constructed from $\frac{1}{4}$ steel plate and is well anchored with $\frac{3}{4}$ " diameter bolts at 18" on center. Other than egress it appears FEMA 361 compliant.



Graysville, AL : Above ground Tornado Shelter

Cleveland, TN



Cleveland TN: This elementary school on Michigan Ave had severe structural damage

- Location: Michigan Avenue Elementary School
- Left photograph shows the gymnasium of the school, reportedly built in the 1950s. Approximately 1/3 of the roof system was found 20+ feet from the gym. The right photograph shows steel bar joists which spanned approximately 45 feet and were supported by partially grouted CMU. Team 2 observed damaged glazing to a large window (approximately 40 sq.ft.) in the same area.
- No students occupied the school during the storm.

Blue Springs, TN



Blue Springs, TN: This elementary School had minor damage to windows but no structural damage.

- Location: Blue Springs Elementary School
- The school suffered no significant structural damage, however minor damage was observed to glazing, window frames and roofing. Rooftop HVAC equipment remained secured to roof deck and some loose roof aggregate was displaced by the storm.
- Right photograph shows plywood at broken glazing, and the concrete planks on the roof that blew off -- after the storm they added OSB where the planks blew away, repositioned the membrane, and then placed the planks over the membrane for temporary ballast.
- No students occupied the school during the storm.

Northeast MS and Northwest AL Summary: Field Team three was able to visit four sites in Smithville, MS today, including a communications tower, the Smithville Fire Department and two residential safe rooms. The communications tower had been taken off of its foundation and was down along the access road. The fire department was a light metal building and sustained damage to its doors and had some roof damage as well. Unfortunately, neither of the owners of the two residential safe rooms that team three visited were home at the time of our visit. In Hacklesburg the team observed the elementary school building, three shelters (non HMGP) and the police and fire station. The police station was one story URM structure and had significant roof loss on the windward side of the building. The fire station was somewhat sheltered behind the police station and was a light metal structure which had some roof damage and was missing its doors. In Phil Campbell the path of the tornado damaged primarily residential areas, with some damage to the high school. The high school consisted of two main structures, the second being a cafeteria that had been constructed in 2003 and performed much better than the main building. It had proper brick ties and lost only a small portion of the façade on the leeward side of the structure.



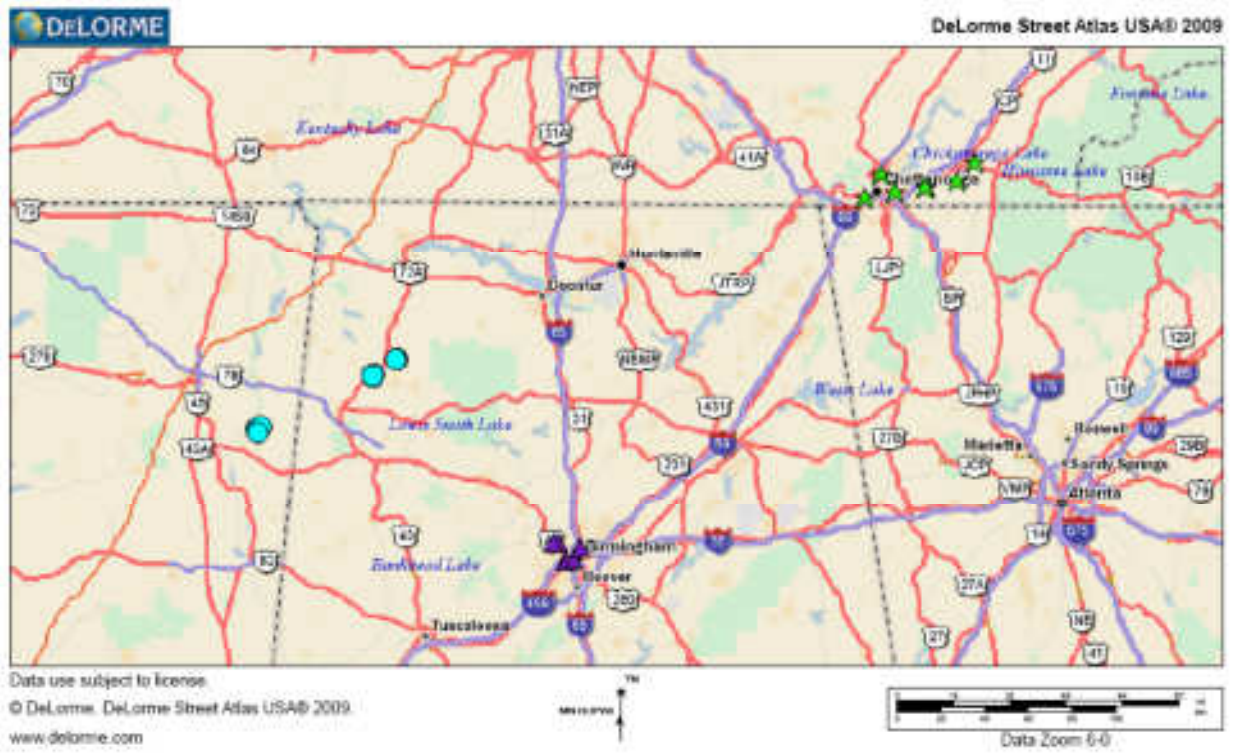
Phil Campbell, AL: High School Cafeteria had loss of façade brickwork.



Phil Collins, AL: High School Cafeteria (close up) showing brick tie spacing.



Phil Campbell, AL: Community Shelter: Held 60 people during the storm



Map showing site locations of MAT field team visits on May 10, 2011. Site included Birmingham area (triangles), Tennessee area (stars), and Northeastern Mississippi and Northwest, Alabama area (circles).